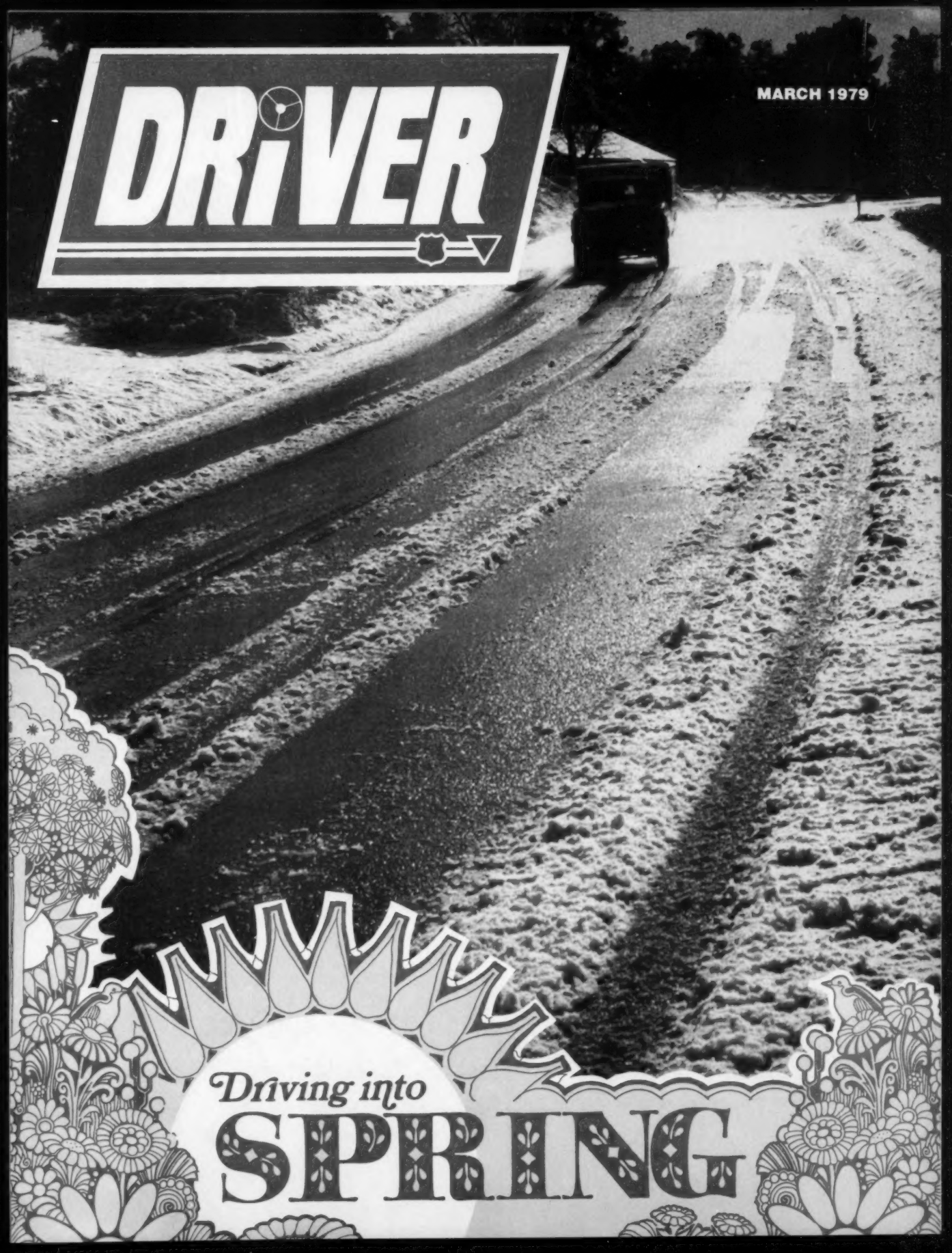
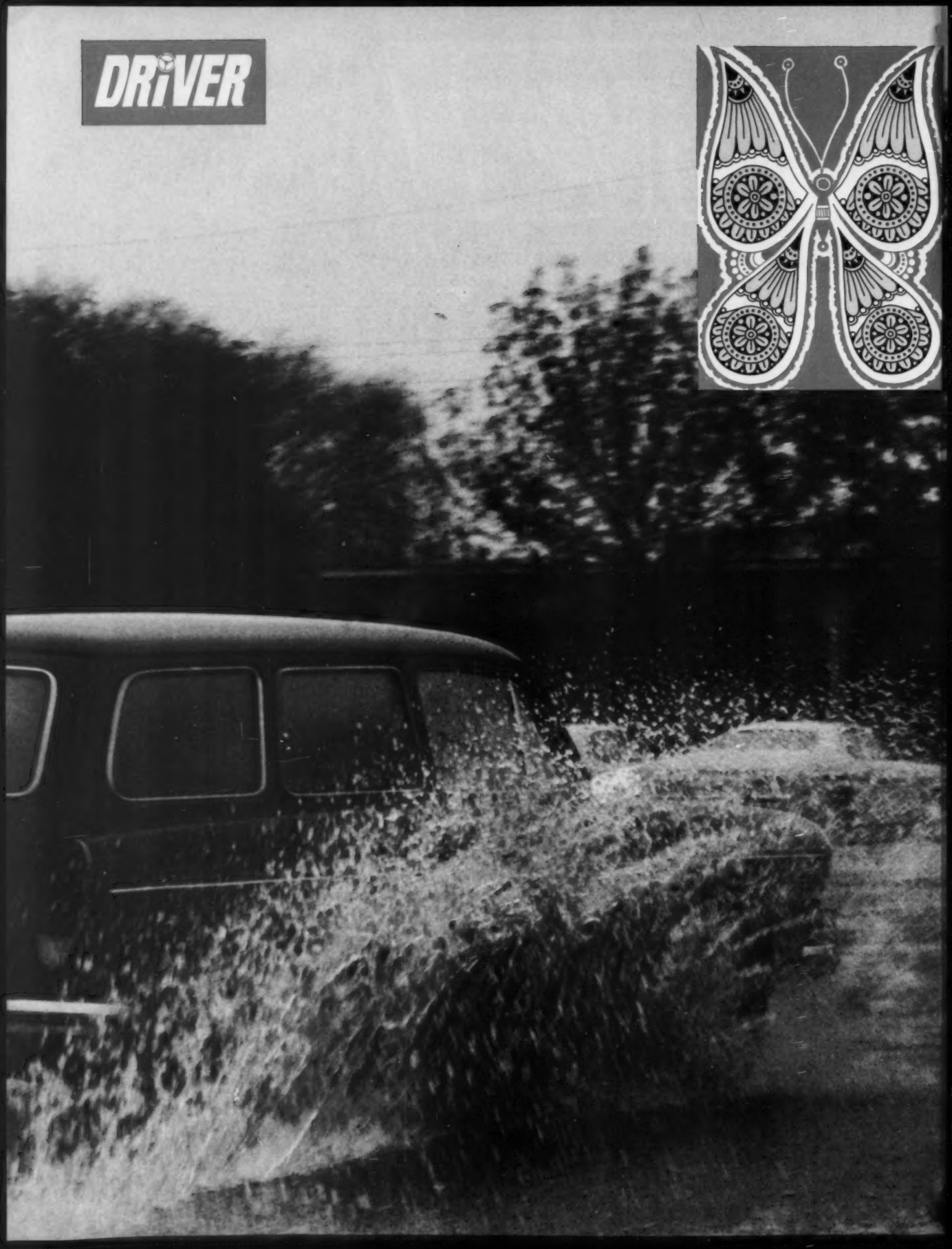

DRiVER
MARCH 1979
Driving into
SPRING


DRiVER

Some places have only two seasons in the year . . . August and Winter. But for most of us this month we're . . .

Driving into SPRING

We drivers have very little choice about preparing our cars for winter. If we don't worry about batteries and snow tires and the mix in the radiator, then one miserable day our car's not going to take us where we have to go. So – even if we're lazy and broke – we do winterize our vehicles.

But now it's spring. An easy time to put maintenance off, but once again the car needs our attention. Because spring means rain, maybe even a very slushy late snow. Some of the worst accidents occur in mild temperatures on pavements that are simply very wet. If the car's in poor condition, minor driving errors can get us in major trouble!

Start clean: The first thing we suggest is a thorough wash job. A car really should be washed frequently all winter long, to remove ice and snow build-up under the fenders and under-carriage. Even if that's all melted away by now, there may be plenty of dried mud in the wheel wells, and a heavy build-up can affect steering and ride. The high-pressure spray at the car wash can remove that dirt. It will also do a good job on the salt which is definitely on your car if you live in an area where salt is used to melt road ice. Salt is extremely damaging. Some car washes on the East Coast have special equipment to remove salt and that's a really good idea.

If you want to wash the car yourself, just remember to use a mild dishwashing soap (laundry detergents may have high alkalai content, which is bad for the paint), and then wipe the finish with a damp chamois or towel because a dry one can scratch the paint.

Keep your distance from these big rigs when it's raining. You're already too close to stop if he stops, considering the road condition. Besides, the truck is throwing up geysers of dirty water that interferes with your already restricted visibility.

After the car is clean and dry, inspect it for scratches. You can dab them with car wax to stop rust from forming, but it's better to fill the scratch with touch-up paint. Just touch the paint on and let it run and spread into the scratch for even coverage. Never paint over

continued

(front cover)
This late spring snow is slushy and very wet. Conditions are ripe for skidding.

DRIVER

THE
TRAFFIC SAFETY MAGAZINE
FOR THE MILITARY DRIVER

DEPARTMENT OF THE AIR FORCE
HQ AIR FORCE INSPECTION AND SAFETY CENTER
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MAR

VOLUME 12 NUMBER 10

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THE EDITOR SPEAKS
DOUBLE CLUTCH

DO YOU REALLY KNOW?

There's an old saying that the things people don't know aren't as dangerous to them as the things they do know that aren't so. We were reminded of that not long ago when we were invited to a luncheon to hear some informal remarks from an old-time race driver. Since the audience was mostly pilots, the speaker began with anecdotes about famous test pilots he had known in the fifties, and about one in particular who never used restraints (of any kind apparently, although the reference was to safety harnesses) when flying his personal airplane.

This led the former race driver to comment that he himself did not approve of shoulder restraints in passenger cars because, first, they would never lock up when you need them on impact and, second, they would twist the spine and injure the back when they locked up on impact. (He didn't explain the contradictory conclusions: If they don't lock up, how can they twist the spine when they lock up?) He ended by recommending that the audience cut the shoulder harness out of their personal automobiles.

Back at our desk, staring at the bubbles in our Alka-Seltzer, we wondered how many DRIVER readers "know" the shoulder harness won't lock up when it should. Our speaker had pointed out that no amount of smart snapping on his part had ever made one lock up. Probably you've tried that, too.

Well, if you could lock them up by pulling on them it would defeat the whole idea, wouldn't it? The idea is to allow you movement until there's a crash. There are two ways they lock up. One is a vehicle-sensitive device. If the car starts or stops too abruptly, a pendulum swings and causes a hinged plate to block the reel's ratchet teeth.

continued on page 29

rust. If a spot has rusted, rub it out with steel wool first. Very fine steel wool also works well on rusted chrome.

Moving on . . . Salt is really bad news, not just because it causes rust spots on your fenders but because it also does a number on hoses, fanbelts, and underhood wiring. Look at your hoses and belts to see if they need replacing. Then check for rust holes in the exhaust system. Mufflers and tailpipes take a real beating in winter. On newer cars, the catalytic converter shield can be bent and loosened because you've driven over piled up ice or curbs hidden by snow – you'll probably hear a mysterious rattle if the shield needs attention.

Next, two important items on your spring check: the windshield wipers and the washer if you have one. Wipers suffer most from the hot summer, which disintegrates the rubber. But if you've used them a lot on icy windshields the last few months, they may be shot by now. We're driving into a season of rain and mud and fog. Replace the blades if necessary and fill up the washer solution reservoir.

Winter also does no good for your front-end. Remember those roads with the bumpy covering of ice, or the roads with the crater-sized holes in the blacktop from freezing and thawing? If the front end is out of alignment, your front tires will wear unevenly, and they'll wear out faster. A front-end alignment is much cheaper than a new pair of steel-belted radials.

continued

Water this deep acts as a brake. If you hit it too fast with one wheel you can find yourself heading in a new direction.

The high-pressure water at the car wash can remove road salt and dried mud in the wheel wells.

There are thousands of obsolete bridges in this country and many miles of unsafe roads. If you travel a route like this daily, face up to the fact that there's a big chance you'll be involved in an accident, especially in rainy or foggy weather. Probably won't be your fault because you know the road. But somebody else might not.

Tires: Next comes the tires. Check them for cuts, cracks, bulges, and TREAD. Every spring we remind you that the tire tread's main job is to provide traction on WET surfaces. On a dry surface you'd actually get better traction from a slick. The treads channel water out from under the tires and keep the car in touch with the pavement. When the treads can't do the job the entire weight of the car is supported by a thin film of water, and you're hydroplaning. Water pressure builds up under the tires and lifts them off the road. Sounds unlikely but it's absolutely true.

The factors that determine if the car will hydroplane are auto speed, amount of water on the road, condition of tire tread, and air pressure in the tires. The more water and speed, and the less tread and pressure, the more likely you are to hydroplane.

You can be hydroplaning and not realize it until you try to pass another car. Then suddenly when you turn the wheel you're clear across the road and in the ditch, not even quite sure what happened. If you ever suspect you're hydroplaning, slow down. The tires will again make contact with the pavement.

Don't assume there has to be a lot of water on the road for hydroplaning to occur. If the surface water casts reflections from tires, telephone poles, or other cars, or if raindrops "dimple" the water's surface, you can be fairly certain hydroplaning conditions are present. A standard-size car with good tires, inflated to recommended pressure levels, may start to hydroplane at 35 mph on a fairly wet road.

The skillful driver slows down when it's raining because he understands what's going on between his tires and the pavement.

Other Driving tips: Visibility also can be a minus factor in the rain. It is more difficult to see in rain than in the dark on a clear night. What you see through the rearview mirrors may be distorted by raindrops on the outside mirror and rear window. So, take an extra look and double check for hard-to-see vehicles coming up behind.

If you're having trouble seeing other traffic, they're having trouble seeing you. Turn on your lights. Drivers should take a tip from motorcyclists and think of their lights as a means of attracting attention to themselves. Use your headlights, never parking lights.

Even with wiper blades in good shape, a heavy rain can still partly obscure road sign and traffic signals, pavement markings, the edge of the road, even pedestrians. Be alert. Road spray from other cars can coat your windshield with a fine opaque coating, even after the storm is over. This is a good reason to keep the windshield washer reservoir filled as we mentioned earlier. Road spray can be more obscuring than rain because it's dirty.

Brakes: Accumulated water and big puddles can cause problems if you drive through at too high a speed. For one thing, the water can affect brakes on many cars. So you should try to avoid standing water, but if you can't, at least reduce speed. Once you're clear of the water, lightly apply pressure to the brakes. If the car pulls to one side or the brakes are less effective than they should be, make several light applications keeping in mind the traffic behind you and allow the heat from the friction to dry the brake linings or pads.

If you must drive through a large area of water, you might lightly place your left foot on the brake pedal while accelerating with the right. This helps keep water from the brake linings. But if you haven't done this before, practice in good weather at slow speeds when no traffic is around. Some people may be a little clumsy the first time they try to do something with their left foot that they normally do with their right.

Slippery pavement: When the first drops begin to fall, the smart driver slows down because he knows almost immediately he will not be able to stop as fast or accelerate as crisply as he could on the dry road. When it rains after an extended dry period, the water mixes with dust and accumulated oil dripped from vehicles onto the road surfaces and forms a slippery mixture. The road can remain slippery until enough rain has fallen to wash away the mixture. How long this takes depends on how hard it rains and how much accumulation there is on the road. The point is, it's always wise to reduce speed and become very cautious if it starts to rain while you're driving. Just the fact that the surface is suddenly wet, and your reflexes are tuned for driving on dry pavement, should be enough warning to slow down.

Stuck in the mud: If a wheel on your car gets stuck in the mud (or snow or sand, for that matter), don't try to free it by racing the engine. The free-spinning wheel on the other end of the axle will turn at twice the speed shown on your speedometer if your vehicle

has a conventional differential gear. As a result tremendous centrifugal force develops quickly and the tire can explode in a matter of seconds.

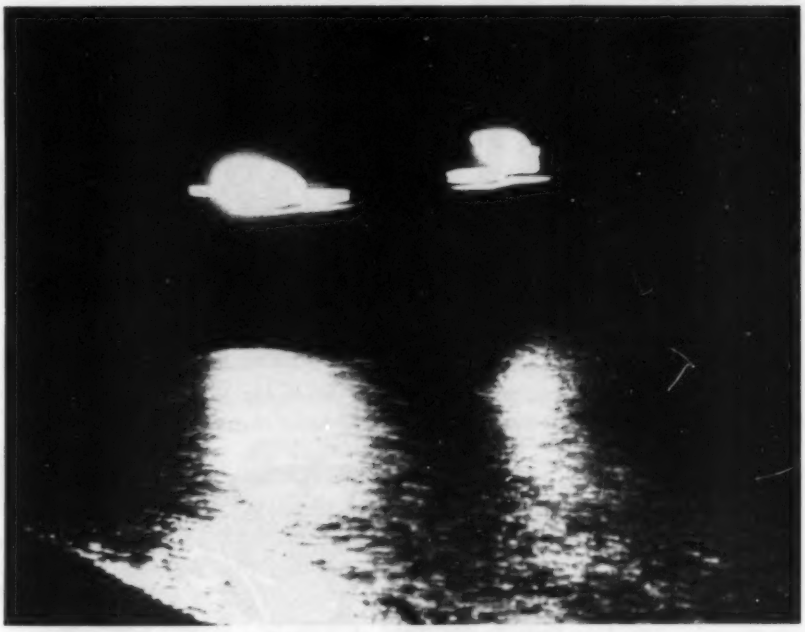
Spinning your wheels doesn't really help you gain traction anyway. Best results are obtained by gently rocking the vehicle back and forth. Repeatedly shift the gear lever from drive to reverse on automatics, or reverse to second on manuals, while applying moderate pressure to the accelerator.

The safest way to get the car out is to call a tow truck. But if you can't do that, then dig out the mud from in front and back of all tires. Remove rocks and stones trapped under the tread or touching the tires. Try to form a gentle slope in front and back of all wheels. Carefully spread sand, cinders or "kitty litter" in front of the rear wheels (front wheels if front-wheel drive) and in the anticipated path of travel. Make sure no one is standing or pushing directly behind the rear wheels where he could be hit by flying debris.

The Tire Industry Safety Council cautions not to use wooden boards, loose chains or other large objects under the wheels on the drive axle. They can fly out and whack you a good one. Blankets might seem a good idea but they provide little traction and often wrap around the axle.

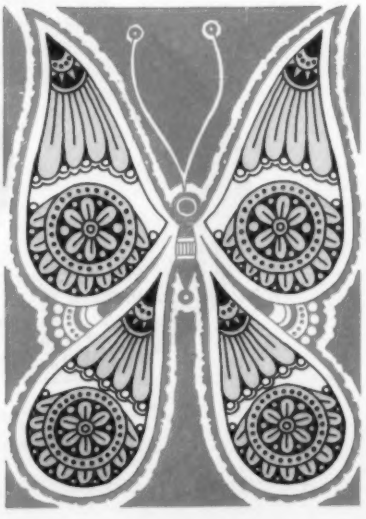
One more discouraging word: America's network of highways, roads, streets and bridges is the finest in the world. But no road or bridge lasts forever. The Highway Users Federation now estimates that 26,000 miles of interstate highways are in need of upgrading to meet current safety and service requirements. And there are growing deficiencies on our other roads as well. There are about 7,000 bridges on the Federal-Aid Systems that are structurally deficient because of the deterioration of components, such as steel beams, wood, steel, or concrete decks, and piers or abutments. Four times that many are functionally obsolete, which means the deck width, vertical clearance or approach roadway alignment is not safe for the traffic using the bridge. And that doesn't include the thousands of bridges maintained by local jurisdictions.

Most of us use the same routes every day, to work or shopping or the gym or the fast-food place. When you get in your car today to drive a familiar route, take a good look at the condition of the streets and roads you're using. Sure you know where the left turn lanes are, but is the paint so worn off that a stranger couldn't see them in a light drizzle? Are you using a four-lane road that has a two-lane bridge? Look for spots where other drivers can combine with poor conditions to get you into trouble. If you find such spots, think about a new route. If you can't change the route, then approach these spots as if every other car were being operated by your 13-year-old sister. That's the thing about this traffic safety business: The only person who is always looking out for you is you.



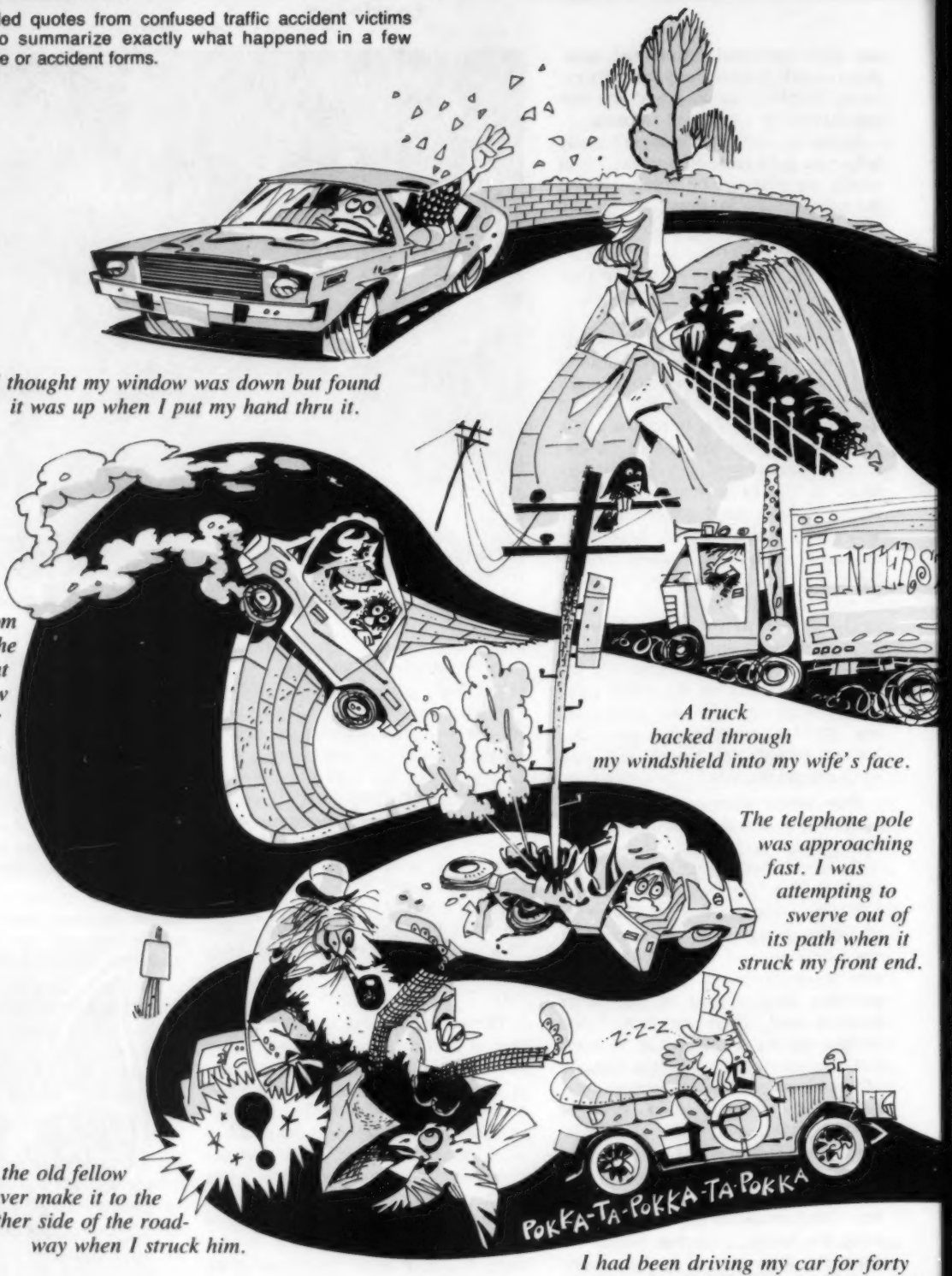
The light from your headlamps isn't much, but sometimes it's all you've got.

Things are looking up: We set out here to convince you that summer may be coming but there's still some unpleasant driving ahead of us. Still, nothing can be as bad as last February in Chicago. *Autoweek* reported a whole series of bizarre events that occurred in Chicago in mid-winter when there was 27 inches of snow on the ground and people had already suffered through six feet of the stuff. In one case, a citizen spent hours shoveling out his car in front of his house, then made a quick trip to the market for supplies. When he returned home, a stranger was parking in his hard-won spot. There was an argument but the stranger simply locked the car and walked away. The homeowner retaliated. First he took his snow shovel and put all the snow back on the other guy's car. Then he hooked up the garden hose and covered it with water for good measure; the car was one big ice cube. Under similar circumstances, motorists had their cars turned over or all their windows smashed. At least those problems should be over until next year!



One more time . . .

Some more garbled quotes from confused traffic accident victims who attempted to summarize exactly what happened in a few words on insurance or accident forms.



I thought my window was down but found it was up when I put my hand thru it.

I pulled away from the side of the road, glanced at my mother-in-law and headed over the embankment.

A truck backed through my windshield into my wife's face.

The telephone pole was approaching fast. I was attempting to swerve out of its path when it struck my front end.

I was sure the old fellow would never make it to the other side of the road-way when I struck him.

I had been driving my car for forty years when I fell asleep at the wheel and had an accident.

"REASONS THEY GAVE no. 2"

I was thrown from my car as it left the road. I was later found in a ditch by some stray cows.
I was on my way to the doctors with rearend trouble when my universal joint gave way causing me to have an accident.
The other car collided with mine without giving warning of its intentions.
I had been shopping for plants all day and was on my way home. As I reached an intersection a hedge sprang up obscuring my vision. I did not see the other car.
To avoid hitting the bumper of the car in front, I struck the pedestrian.
I collided with a stationary truck coming the other way.
End

the INVISIBLE safety

Or, "Your freedom ends where my bumper begins—plus a few feet."

There is a concept in psychology which deals with the amount of space we must have around us in order to be comfortable. If a stranger comes closer than the minimum distance, and we do not want him there, we become nervous and perhaps hostile. This "safety zone," as it is sometimes called, is also present when we are driving our automobiles. The space we will need in order to feel comfortable in a car will be larger than we will need outside the car—obviously the two feet we might need in person-to-person confrontations will be insufficient when we are in a 1½-ton car. The space may have as its boundaries the dotted lines that separate the traffic lanes. Most of us will feel perfectly comfortable with the other cars in their own lanes. But some people might feel ill-at-ease if a car is any closer than two lanes over. These people might have nervous fits in heavy traffic; some of them may avoid freeways at all times.

Of course, comfort is only a part of it. What of the real *dangers* of too much togetherness on the highway? Getting too close is a major contributor to accidents, and it is also a major cause of heightened anger, and blood pressure, on the part of the receiver of the closeness.

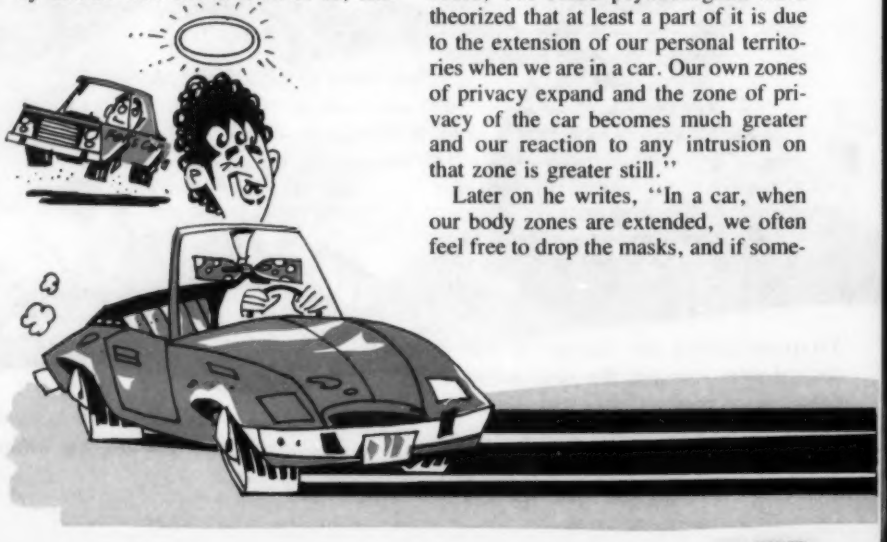
Julius Fast, in his book "Body Language," speaks of defending our "body zones" (no, he's not talking about body *parts)* and he relates this to driving.

"Can we use this intrusion of personal space to arouse defensive measures in others, or can we, by avoiding it, also avoid the sometimes dangerous consequences of an intrusion? We know that tailgating a car is dangerous from a purely physical point of view. If the car ahead stops short we can smack into it, but no one talks about what the act of tailgating can do to the nerves of the driver ahead.

"A man driving a car often loses an essential part of his own humanity and is, by virtue of the machine around him, once removed from a human being. The body language communication that works so well for him outside the car often will not work at all when he is driving. We have all been annoyed by drivers who cut in front of us, and we all know the completely irrational rage that can sometimes fill the driver who has thus had his space invaded. The police will cite statistics to show that dozens of accidents are caused by this cutting in, by the dangerous reaction of the man who has been cut off. In a social situation few men would dream of acting or reacting in this fashion. Stripped of the machine we adopt a civilized attitude and allow people to cut in front of us, indeed we step aside quite often to permit people to board a bus or elevator ahead of us.

"A car, however, seems to act much like a dangerous weapon in the hands of many drivers. It can become a weapon that destroys many of our controls and inhibitions. The reason for this is obscure, but some psychologists have theorized that at least a part of it is due to the extension of our personal territories when we are in a car. Our own zones of privacy expand and the zone of privacy of the car becomes much greater and our reaction to any intrusion on that zone is greater still."

Later on he writes, "In a car, when our body zones are extended, we often feel free to drop the masks, and if some-



zone

Ever get the feeling someone is following you a *little* too closely?

one cuts in front of us or tailgates us, we may loose tides of profanity that are shocking in their out-of-proportion emotions."

We have to admit such reactions to invasion of our personal space are the rule and not the exception. Everyone gets mad; you do, we do, even your grandmother does. And everyone has his own personal space – which he's entitled to.

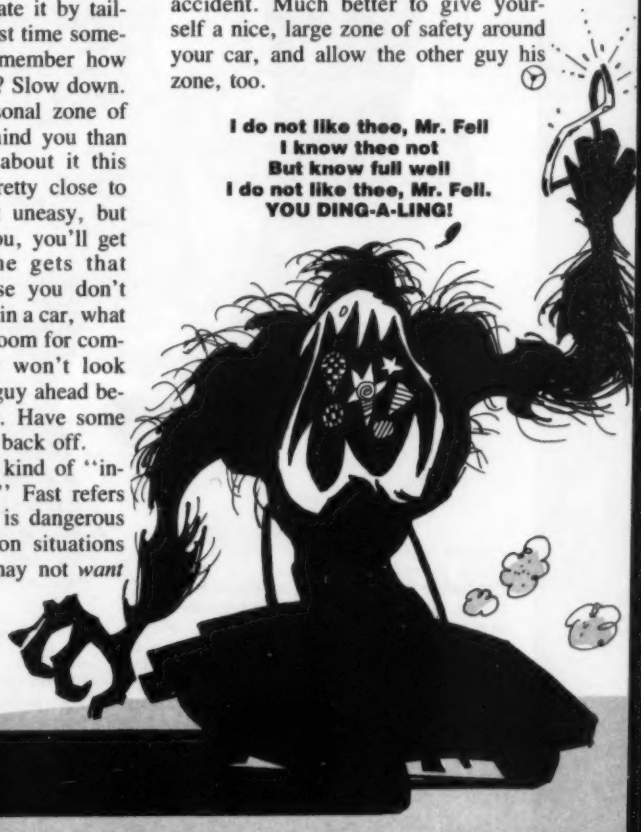
So plan around that fact. Steer your car in the center of your own lane of traffic. That'll give you plenty of room on both sides. Most traffic lanes are *far* wider than any car – even the big full-sized luxury cars.

Follow the car ahead leaving enough space so you're comfortable, but also enough so you'll have time to stop in an emergency. You might feel completely relaxed following ten feet behind another car (although we don't know *how* you could be relaxed!) but you don't have any space to stop. Remember the two-second rule. No matter what your speed, allow enough space so that you pass a stationary object *no less* than two seconds after the guy ahead. When he passes a sign or a tree or something, count "one-thousand and one, one-thousand and two." If you pass the object before you finish counting, you're too close; slow down.

If nothing else, think of the guy you're following: He has his own personal safety zone too, and you'll make him very unhappy if you violate it by tailgating. Think about the last time someone did that to you. Remember how bent out of shape you got? Slow down. Remember that your personal zone of safety extends farther behind you than it does in front. Think about it this way: A guy can come pretty close to your face before you get uneasy, but if he comes up behind you, you'll get annoyed long before he gets that close. Maybe it's because you don't know what he's up to. So, in a car, what looks to you like enough room for comfort – in front – probably won't look like nearly enough to the guy ahead because it's in *back* of him. Have some consideration for him and back off.

Then there's that other kind of "intrusion of personal space" Fast refers to, cutting in. Cutting in is dangerous enough in person-to-person situations like dancing – the dude may not *want* you to dance with his date. But in cars it becomes an invitation to the "dangerous consequences of an intrusion," the old familiar auto accident. If you're going to change lanes in front of someone, you can add to his friendliness toward you by giving him a lot of personal space. Don't make him afraid you're trying to remove his *front* bumper with your *rear* bumper. He may not smile and wave at you, but he'll appreciate it just the same.

What's this all lead up to? Just remember how you feel when someone is discourteous enough to violate your personal space. Angry. Then figure what'll happen if you do it to someone else. He'll get angry. But worse than that, you'll set up a situation where you are both more likely to have an accident. Much better to give yourself a nice, large zone of safety around your car, and allow the other guy his zone, too.



The '79 Accessory Show grows a bumper crop of goodies

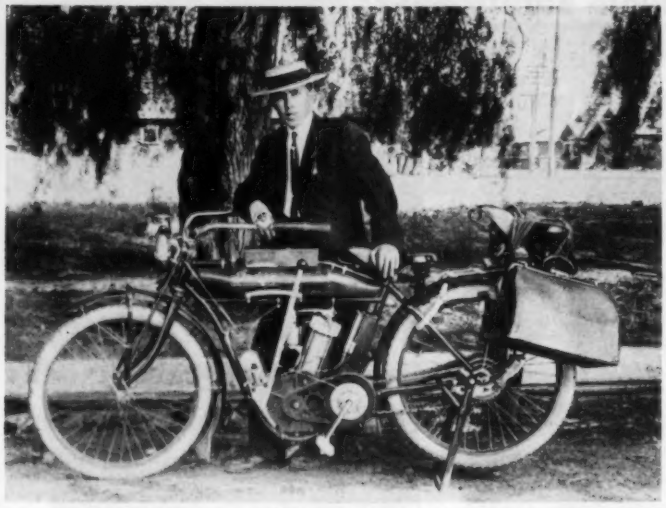
IN CYCLE SAFETY GEAR?

Probably the newest wrinkle this year comes in the form of motocross boots made of plastic, not leather. Said to be very effective against water, boot also has no edges to collect stray bushes, rocks, etc. Foam boot liner comes in different thicknesses to make correct fit with hard boot.

Combination head and Adam's apple-warmer is all silk, can help prevent the onset of hypothermia due to exposed neck area on those frigid days when you're dodging snowflakes.

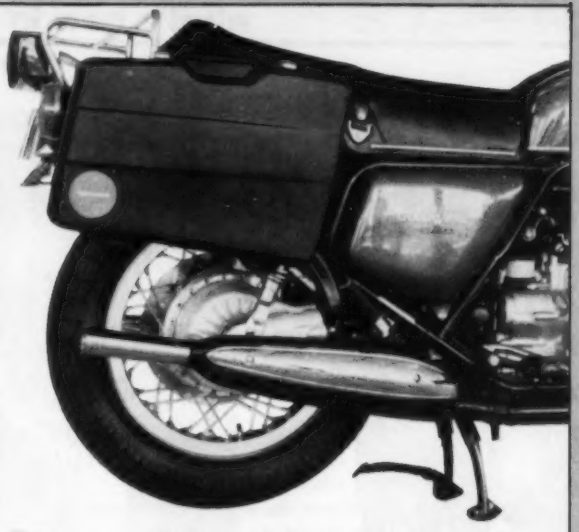
Shin and knee guards keep rocks, puckerbrush, and small animals away from those tender parts. If you've ever tried walking after a kick to an unprotected shin or knee, we know you'll appreciate these little goodies.

(right)
New helmets are smaller, lighter than their predecessors, offer advances like built-in air vents that prevent dirt riders from becoming dirt breathers as well. Integral dust filter also eliminates the need for separate facemask/filter that riders usually attach to their goggles.

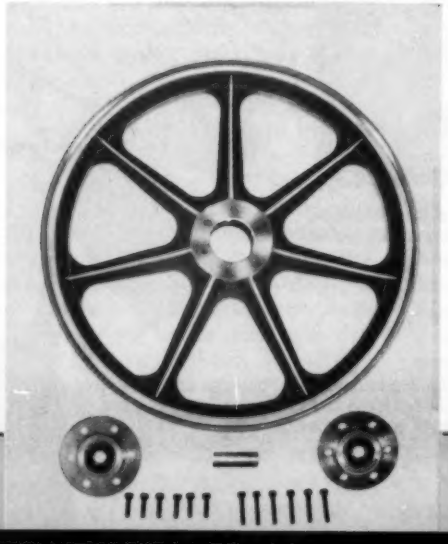


Cecil House, uncle of DRIVER's very own Lorraine Hamblen, shows us what touring was like in 1916. The times have changed a bit . . .

. . . Or have they? Considering what Cecil had to work with, it looks like he was better prepared for a tour.



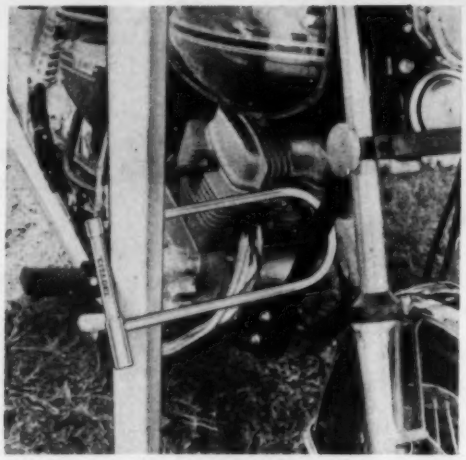
Modern carriers are actually luggage, carry about 18 pounds and are easily detachable from bike frame for security's sake. Isn't this really a better way to go?



Cast metal wheel and factory-engineered installation kit easily adapts to disc brakes, is not so easily damaged by pot holes and has little deflection or out-of-round problems as compared to traditional wire-spoked wheels.

continued

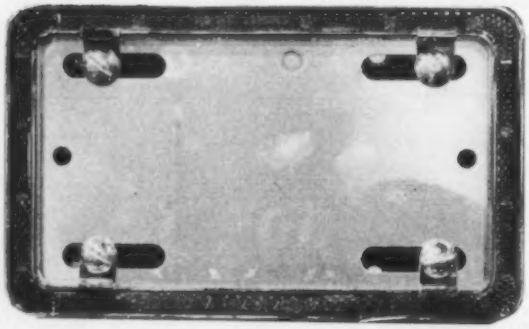
Look professional? It is . . . and it's also the safest way to go dirt riding. Protective clothing isn't just to make you look like you belong on a bike, it's to make sure you are able to *continue* riding your bike!



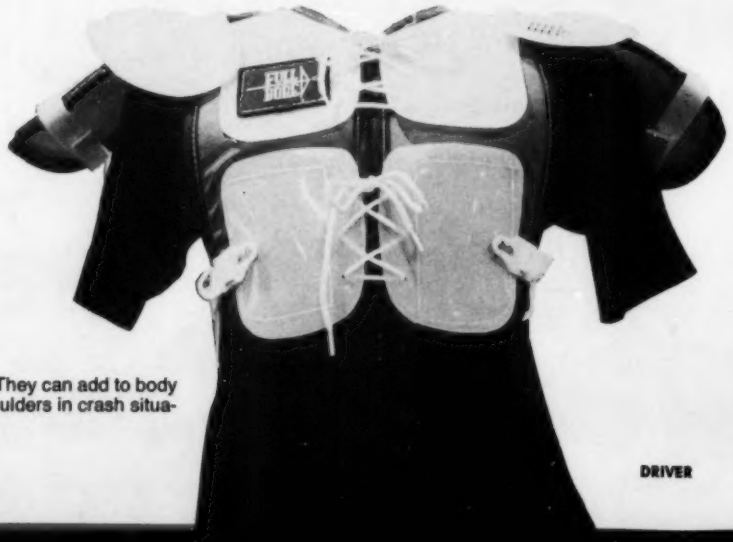
New developments in cycle theft protection help prevent the casual thief from ripping off your machine and then crashing it (and him) because of unfamiliarity with the bike. "Never loan your toothbrush or your bike" is the old saying.

Padded shorts protect both lower spine and "other parts," can save you grief in the event of a tankslapper or a rearward get-off.

Sturdy plastic oil/gas pre-mix containers help you get exactly the right oil/gas mix, thus saving your engine from oil starvation, and you from a long walk back!



Ever get nervous when someone follows a bit too closely at night? Perhaps it would help to have a few more square inches of reflective material on the rear of the bike.



(right)
Fully-padded jerseys may be a good idea for road riders, too. They can add to body warmth on a cold day, as well as protect your upper torso and shoulders in crash situations. Equipment like this is almost mandatory for you dirt riders.

CASE for the LOG

How the maintenance of an auto log can save money, time and grief

by GEORGE F. HATVANY, Jr.

Have you ever wondered when was the last time you changed plugs and points, or the last time you charged the air-conditioning system, or had the shocks replaced, or rotated your tires? How about one of the best indicators of all for alerting you to the need for a tune-up . . . gas mileage, is it holding its own or slipping? All these questions and many more can be answered by keeping a log.

A small address book or note book can be used as a log. One can be purchased for 50 cents to a few dollars at any stationery store. I recommend keeping it in the glove compartment of the vehicle along with a good mechanical pencil with eraser.

The log should be broken down into two sections, a maintenance/replacement section and a gas mileage section.

The maintenance/replacement section is located in the front of the book and is annotated as to mileage and date plus a short description of maintenance performed and parts replaced. It progresses from the front of the log to the rear. A few example listings follow:

43,546—10 July 76—left rear tire repaired and all four tires rotated (Xed), repaired tire is now on right front.

44,723—15 Aug 76—fan belt replaced and car waxed

45,133—5 Sep 76—water pump replaced with a rebuilt unit

46,013—21 Sep 76—all four sets of brake shoes checked, look like they have another 20,000 miles on them, check again at 66,013 miles

Suppose the water pump is again replaced in another 10,000 miles. I recommend lining through the 45,133 mile water pump entry in such a manner as to leave it readable, example:

45,133—5 Sep 76—~~water pump replaced with a rebuilt unit~~

The lining through will alert you to the fact that water pump work was again done at some later date. Log the new water pump replacement, example:

55,300—17 Aug 77—replaced rebuilt water pump with another rebuilt unit, got 10,167 miles out of old unit.

If your vehicle starts to run rough, no sense in replacing the plugs and points and giving it a tuneup without first checking your log. Could be your log reveals you put new plugs and points in and did a tune up only 1,500 miles ago, so the problem could be a faulty fuel filter. Use your log as a trouble-shooting aid and anti-rip-off device. If you have your car worked on by someone other than yourself, you can tell the mechanic the plugs and points were new 1,500 miles ago. He may be a little less likely to charge you for a set of plugs and points and a tune-up when all you needed was a fuel filter.

The only periodic maintenance I don't recommend putting in the log book is the lube jobs and oil and oil filter changes. I think the time of your next lube job and oil filter change should be written on the face of your instrument cluster glass with a dark grease pencil, so it will always be in front of you as a constant reminder.

Should you change plugs just because you have 10,000 miles on them if they are performing well? The answer is no. But how do you know whether plugs and other parts need replacing? If the vehicle is obviously running improperly, then look for the problem. If the vehicle is running reasonably well, then a drop off in gas mileage as evidenced by the second part of your log, the gas mileage section, could tip you off as to when parts replacement and tuneup are required.

Every gallon of gas put through your vehicle should be kept track of starting at the back of the log and progressing toward the front. Gas mileage doesn't have to be computed every time the tank is filled but a running record must be kept so as to compute gas mileage at a later date. Sample gas mileage entry for my motorhome:

(1) 21 Nov 75 (4) 56,677.5
(2) 725.2 (5) 14.39
(3) 50.4

(1) date tank filled
(2) miles driven at time of fill up, subtract previous odometer reading from present one
(3) amount of gas required to fill tank
(4) current odometer reading
(5) miles per gallon obtained, divide (3) into (2)

The trick is to arrive at the optimal gas mileage for your vehicle.

When a new or used vehicle is purchased I suggest it be tuned by an expert, you or a good mechanic. Once the vehicle's optimal miles per gallon is determined use it as a comparison guide. No sense in changing plugs and points and tuning up if your gas mileage hasn't decreased or the vehicle hasn't been running improperly. Also, why take the carburetor apart at 60,000 miles if the car is running properly and the miles per gallon obtained are right up there with your optimal figure.

A well maintained log can save you time, money and a good deal of grief. Look at the log as an aid to maintenance, trouble shooting and arriving at a fair price paid for repairs or maintenance.

Intersection Etiquette

The DRIVER Magazine Guide to Good Manners

Can you keep your head, while all around you people are shouting, screaming and bolting through intersections with only hair's-breadth distances between them and disaster? Can ya, huh?

What do we mean by "etiquette"? Four different forks and ten different spoons at the dinner table? The proper way to serve tea ("One lump or two?") at an afternoon party? No, not that kind of etiquette. We mean the kind in which you say "After you," and let someone else on the elevator first. In driving at intersections, etiquette is quite similar – just a case of letting the other person go first. Because conducting yourself well in any situation requires good manners.

You know how it feels when someone goes through the intersection when it's *your* turn. You think, "That creep!" or some other such epithet. And you also know how it feels when someone allows you to go first. You think, "That was nice of him," and when you let someone else go first, you feel mildly pleased with yourself. See? Just good manners, that's all.

Some of the situations in this article will require the exercise of good manners, and some just good *sense*. For the purpose of argument, we'll assume (and rightly so) that you're capable of both and that you'll meet a lot of people who've never read Amy Vanderbilt or even a driver's manual. It's a lot safer to assume everyone else is a dolt than to expect them to be polite.

Let's look at some good, old-fashioned politeness. A friend of ours was leaving work one day, driving in a long line of impatient people who were eager to get out the gate of the base where they worked. Some distance from the gate a minor road intersected with the main road. Idling at the stop sign was an airman in his VW. Our friend knew nobody would let the airman into the traffic, so he stopped and motioned for the airman to go ahead. The airman gladly took off and waved his thanks.

And then some clown in the lane to the left nosed over and followed the airman before our friend could get his car into gear. Ah well, our friend thought. Being a nice guy has its price.

A minor incident, you say. How right you are! It was a minor incident on all sides. But a minor politeness like our friend offered can make the day easier for someone else. And a minor infraction of manners, like the other driver committed, can spoil your temper if it's on the edge to begin with.

But now we'll go to something more dramatic, a true-life example of the dangers of intersections. Another friend of our was at an intersection of two major boulevards. He was waiting in his new powder-blue Pontiac in the right lane of a double left turn lane. A woman in a station wagon was in the left lane. When the light changed to signal for the double left turn, the woman on the left moved out into the intersection. For some reason – he wasn't sure why – our friend waited a couple of seconds before touching the accelerator. That was all he needed.

A young girl driving down the cross-street decided to attempt to catch the tail end of a yellow caution light. She sped her sedan up to about 45. She wasn't even close – the light turned red before she even got there. As she came through the intersection the woman's wagon was directly in front of her. The impact sent the station wagon spinning off to stop in the yard of a church at one corner. The girl's

continued

(left) **Perhaps** because of the many conflicting directions of travel, or because of the volume of traffic, intersections are one of the most common places for accidents to occur. Be alert and allow the other drivers the right-of-way whenever possible.

At an intersection without a left turn signal, the driver can move into the intersection while the light is green and wait for a clear space in which to complete the turn. If the light turns yellow before he moves into the intersection, however, he must wait for the next green light.

Pedestrians have a right to use the crosswalks without dodging automobiles. Be courteous to them and stop your car before you cross the line.

car came to rest on the median strip across the intersection. Amazingly nobody was seriously hurt. And our friend, who would have been the third party in the accident, got to wax his shiny new car that weekend, just like always. If he had been just a little quicker on the gas pedal, the station wagon would have collided with him after the first impact.

Luck? Maybe. Or just caution. Caution at intersections is born out of respect for one of the most common scenes of auto accidents.

The National Safety Council prints accident statistics each October in their publication "Traffic Safety." For a chart on improper driving that caused accidents in 1977, they compiled reports from 41 urban centers and from rural areas in 11 states. Of the total number of accidents, 83.4 percent involved some improper driving and 16.6 percent did not. But get this: 17.7 percent were caused by speeding and *21.3 percent* were the result of right-of-way violations.

The possibility of right-of-way mishaps is far greater at intersections, where cars are moving in so many different directions and crossing in front of other cars. And what of car-motorcycle accidents, and car-pedestrian accidents?

"This is the steering wheel . . ." If dear ol' dad taught you to drive in the family car, he probably kept you in a

The rule that allows a right turn on a red light is a good, convenient one. Although such turns can usually be made with a minimum of hassle, busy intersections will require you to be more on guard, and to let more cars go by before you can make the turn in safety.

parking lot or on your residential street, and stayed pretty much away from the major intersections of the city. He knew they are dangerous places at best, and especially so for the novice driver. You had enough to think about without getting confused and rattled by all the signs, lights and other cars at major intersections.

But now you're a driver of some experience and you handle intersections in a ho-hum manner. After all, you've stopped at countless lights and had no problems. But what's your attitude now that you meet people every day at intersections? Is it thoughts of "Move it, you clown," or is it more like "Now it's his turn; then I can go."? All of us are guilty of the first attitude sometimes. The second one is better, as we'll show.

"After you": There are many kinds of intersections: City streets with stop lights or stop signs, residential streets with no control markings, roads intersecting with highways, intersections with railroads and intersections with (or between) freeways. (We covered the intricacies of freeways last August in "Life in the Fast Lane," so look at that one for freeway driving.) They all are similar in one way – they present the possibility of vehicles crossing in front of other vehicles.

The crossing-in-front confrontation brings up the question of "right-of-way," which can generally be boiled down to a question of *politeness*. You'll take your turn at the intersection when it comes to you, but you won't be fanatic about it. If the guy in the truck feels he *has* to go through first, and starts out in front of you, you'll let him. Because it really isn't worth the trouble to get angry about.

Oh, sure, there are rules to right-of-way. But just because the rule says you're the next one to move doesn't mean you should challenge the guy who has taken your turn away from you. Very little good is done by shouting at him, gesturing in a shocking fashion, or moving into the intersection at the same time.

But we were talking about the rules. If everyone obeyed them, we'd have no problem, just as in the case with every rule of the road. The rules are pretty good ones, from an etiquette standpoint.

At intersections, etiquette is a game of "Who has right-of-way?" or "Who goes first?" The rules are standard across the country. Let's take a few examples.

The scene is an intersection with no stop or yield signs. Airman Mudslinger comes from the north and Airman Hockeypuck comes from the east. Who goes first? The one who gets to the intersection first. Seems only natural. If Mudslinger enters the intersection first, Hockeypuck must wait for him to go through. Hockeypuck must also wait for anyone else who is closer than he is.

Okay, same intersection, same airmen coming from same directions. Only this time they both arrive at the intersection at the same time. Who goes first? Well, there's an arbitrary rule here, so neither one has to rely on the good nature of the other. The one to the right goes first. In this case, that means Mudslinger. He's coming from the north and is therefore to the right of Hockeypuck.

By the way, these same two rules – first one there moves first, and the one to the right in case of a tie – also apply when there are stop signs for both contestants.

So how about a stop sign for just one of the contestants? Sgt Greengrocer stops at the sign. He has to wait for Airman Figmo, MSgt Whistlestop and anybody else on the cross-street who is close enough to be a hazard. Then he can move across the intersection.

Now let's take a turn. Sgt Messhall is waiting at a two-way stop. He has to wait for Col Flyingfool and Airman Wheelbearing to get out of the way first, before he turns left. Same thing for a right turn.

For turns at a four-way stop, the rules go back to "first there, first through." Simple, easy and hassle free – *if* you remember to be polite and allow the other guy his turn.

Note the word "allow." The important thing to remember about right-of-way is that it isn't something you *take*. It's something that is *given* to you first. Think about it – even if by all the rule books you should have the right-of-way at an intersection, it isn't yours until the other guy allows you to go. He does this by not going himself. If he moves first, you don't insist on going ahead of him. You *let* him have the right-of-way.

We'll admit confusion can happen, even when both drivers at an intersection are aware of the rules. The best remedy for confusing situations like this is a gesture. (No, not *that* kind!) Motion the other driver on. With that, you've given him the right-of-way and then you can go. He'll appreciate you for your sterling qualities, and you'll agree with him.

At an intersection with lights it is a lot simpler because you have something that *tells* you when to go. It is also a lot more complex because there are a lot more cars there. But that's only natural – stoplights are placed only at more heavily travelled streets.

But what do the lights tell you? The traffic signal contains three colors of lights, green, yellow, and red. Asked what they mean a lot of people would get only one right: Red means stop. What does yellow mean? No, not "caution," or not exactly. It means "stop if you can do so safely." And green means "go, if you can do so safely." Think we're being picky? Remember the girl at the beginning of this article. The yellow light for her meant "stop" because she couldn't possibly get through the intersection before the red appeared. She took it as a "you'd-better-hurry-up-or-you'll-hit-a-red-light" signal, and she caused an accident.

And the green light didn't mean "go." If the woman in the station wagon had been alert, she would have seen what the girl had in mind, and she would have waited until the girl zipped through the intersection. Sure, the girl would have managed to break the law without getting caught, but what of it? To the woman, green meant "go," and to our friend, green meant "wait-until-all-the-idiots-are-gone-and-then-go." You can see who was right.

Those yellow caution lights can surprise you sometimes. Some will remain

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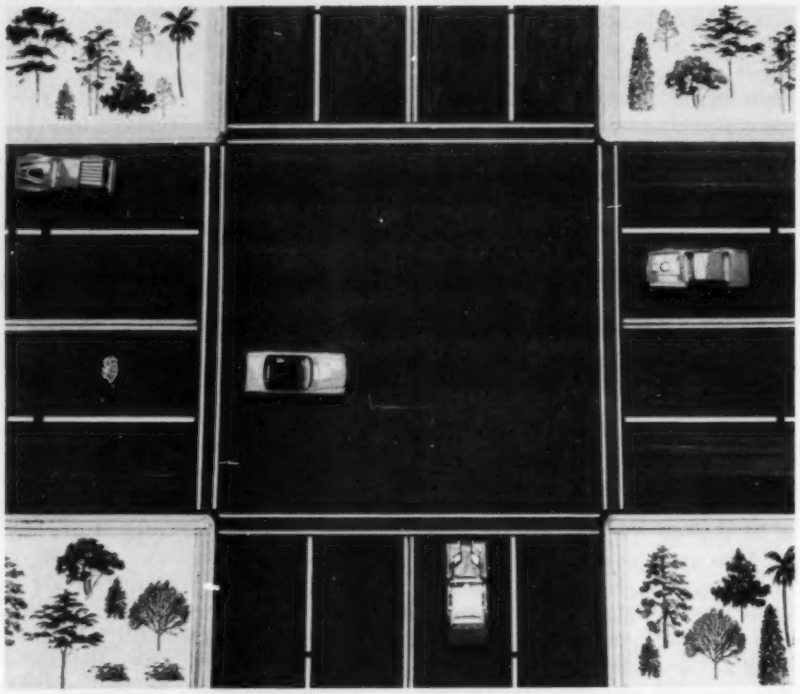
lit for only a short time, and you may not be able to get through the intersection before the red appears. This is one of the reasons intersections are sometimes unpredictable. One thing you *can* predict: If a light a block or so ahead of you has been green for some time, you can expect it to turn yellow before you get there.

The left turn arrows make driving more pleasant and easy. But they're not totally predictable either. We know a few intersections where the left turn signal lights up *after* the straight-through signal has gone off. The first time we saw them we thought they were malfunctioning, but we discovered they always worked that way. Be alert for the ones that don't work like you expect.

Head start: There are many intersections without this convenient left turn light. You've seen this many times: A motorist at such an intersection who wants to turn left will pull into the intersection and wait until the opposing traffic has gone by. When they're gone, he'll complete the turn. We've heard that some people consider this illegal. No, it's perfectly okay – with an exception. The left turn-er may not venture into the intersection after the light has turned yellow. But if he's already there when the yellow comes on, he may complete the turn. That means the cross traffic has to wait for him – after all, they can't very easily go *through* him. Some people abuse this privilege by going when the light turns yellow for them. It may be annoying to have to wait until they're out of the way, but it's only a minor problem. Let the guy have the right of way and don't gesture at him – no point in two people breaching etiquette.

Sometimes you will approach an intersection and find that the stoplight is flashing on and off. This could be because of a malfunctioning light, or the city could be operating the light this way purposely, because of sparse usage of the intersection (for instance late at night, or at a fairground not currently being used).

The light may be flashing red in all four directions, or it may be flashing yellow for the main-used street and red for the sparsely-travelled road.



At intersections which have no control signs, the first car at the corner is the one which may go first. Drivers must yield to cars already in the intersection.

Here's what these mean.

The flashing red light means the same as a stop sign. Stop at the intersection, and then move on when it is safe to do so. The flashing yellow means slow down for the intersection. You have the right-of-way, but you must be alert for other traffic who might have other ideas. They may be unaware of the rules of good manners – or it's possible the light is *really* malfunctioning. Remember the rules of safety – and good manners – and let anyone who insists go before you.

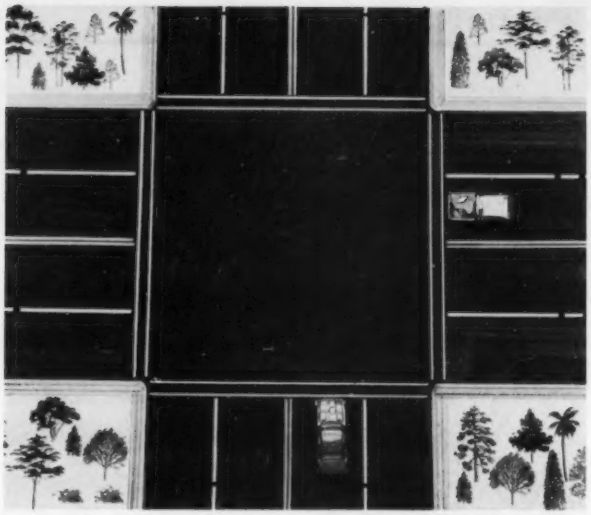
If the light is flashing red in all directions, treat it like a four-way stop sign.

Other times, you'll find the lights are just *out*. General power failures after storms can cause this, or high winds, or whatever. Driving is more complex in such situations, but in our experience there's no cause for undue alarm. When the lights go out, people become more cautious and they don't worry so much about arriving sooner. What do they do? They treat the intersection like it was controlled by four-way stop signs, or like the lights were flashing red in all directions. Each person stops, politely waits for his turn, and then moves. If there's any problem, like two people moving at once, they are alert and on guard and one will defer to the other.

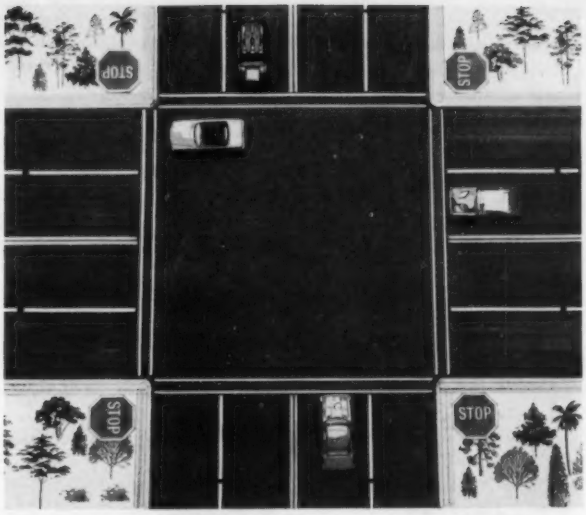
Whatever the situation, it's always nice to have a traffic cop there to handle the intersection in case of a malfunction. If a policeman is directing traffic, disregard the stoplights, even if they appear to be functioning normally. The policeman is there for a reason and he always takes precedence over mechanical signals. (Firemen do, too.)

Special cases: Now for a couple of special maneuvers you'll do occasionally. The first is the more common – the right turn on red.

Almost all jurisdictions now allow the right turn on a red light. Unless there's a sign that prohibits it, all you need is to be in the right lane. (New York City, the District of Columbia and the state of Massachusetts allow



If two cars on different streets come to an uncontrolled intersection at the same time, the car to the right is the one which may go first.



At four-way stop intersections, the same two rules apply, the first car at the intersection goes first, and the one to the right moves if two arrive at the same time.

rights on red *only* if a sign specifically permits the turns. In some areas, a right turn is permitted on a steady red right-turn arrow; check your local laws to make sure on this one.) The DRIVER Manual of Good Manners states you must wait until the other cars are past; then make the turn. It is bad manners to wait for a small gap in traffic and make a fast turn. Also it's dangerous.

A turn that is not so universally allowed is the U-turn. That's where you turn around in the street and go back the way you came. U-turns are allowed here in California unless signs or street markings prohibit it. Rather than explain those – the markings may be different in other states – we'll just point out two things. One: If the U-turn is otherwise allowed, make sure you watch for *all* other traffic and wait politely for them to go by before you attempt the turn. Two: Be aware of the turning radius of your car. The turn might be legal and there might be no one else on the road, but if the road is too narrow for your car's turning radius, you'll have to back up once or twice to complete the U-turn. Running up over curbs is lousy for your tires, front-end alignment, and the shield on your catalytic converter if you've got one.

See no evil: If you like major annoyances, the "blind intersection" is as good a place as any to get the experience. Blind intersections are well named. These are the places where buildings, trees or bushes, or just

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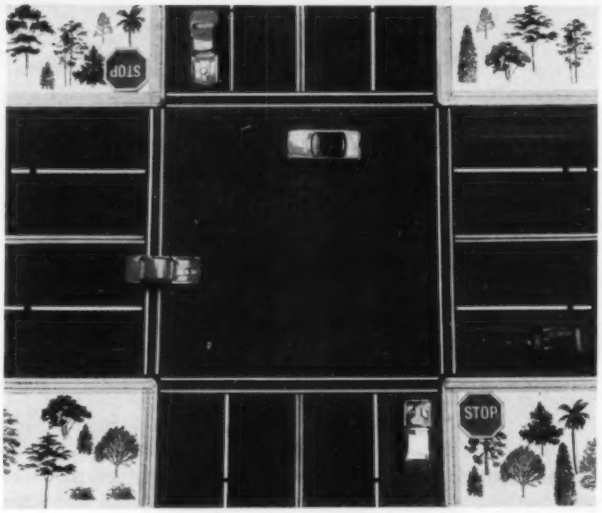
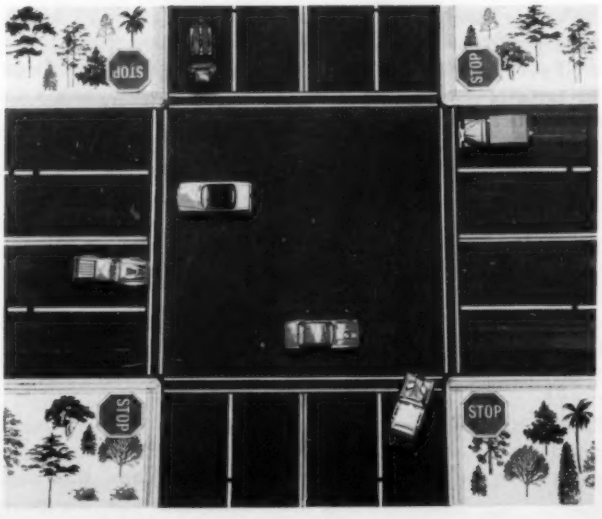


If only one street of the intersection has a stop sign, the motorists at those stops must wait for any cars that are close enough to present a hazard to them before they move.



Likewise, any driver who is making a turn must wait for traffic to clear before he attempts the turn.

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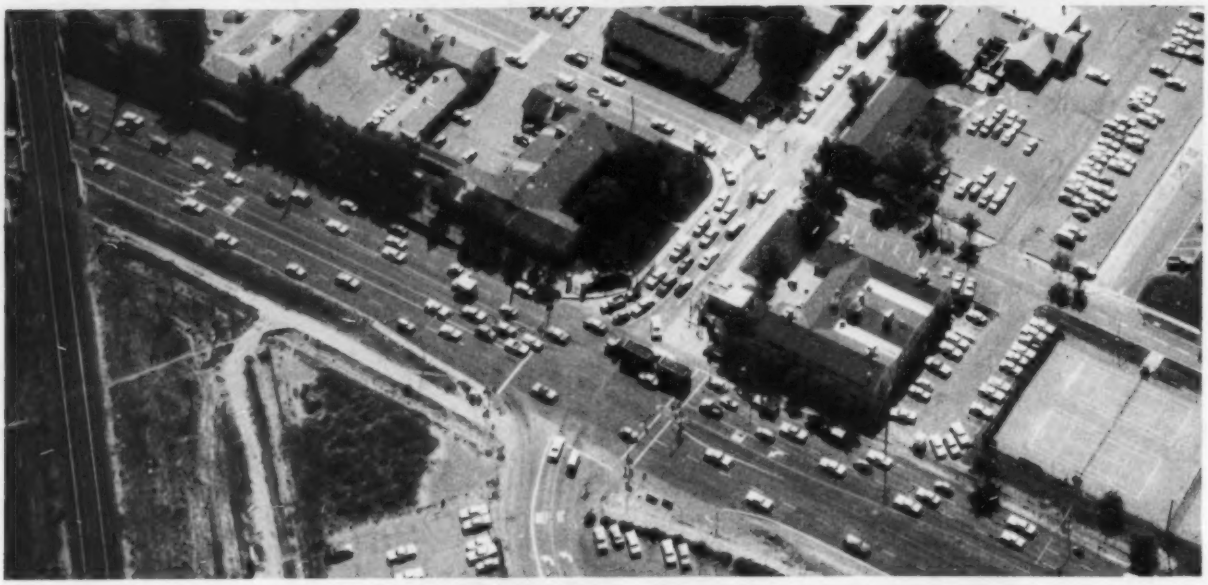

parked cars get in the way of your ability to see adequately to negotiate the intersection. It's fine when there are lights to control the traffic but when there is only a stop sign, you've got real trouble.

If you come to a blind intersection, your best bet is to move in whichever direction is the safest – no matter which way you *really* want to go. Like, if you want to go straight and you can't see to the right, wait until the traffic coming from the left is gone and then turn right. Then you can hunt for a better intersection to continue your journey.

And what if you can't see either left *or* right without sticking your nose so far out someone takes off your radiator? That can happen, for instance at the intersection of an alley and a street. Well, unless you want to set up housekeeping right there, you should honk your horn to warn any approaching motorist of your presence, and your intentions. Then you can move out – slowly, prepared to stop suddenly if there's anyone coming through. Funny thing – a lot of drivers think it's impolite to use their horn like this. But that's what it's for. It says "I'm here!"

This is the same technique you'd use on a narrow road with a blind curve. Honking might sometimes be considered bad manners, but it's necessary in cases like these.

Feet, don't fail me now! We don't want to leave our discussion of etiquette at the intersection without mentioning those fearless inhabitants of the American city – the pedestrians. These are individuals who challenge death every day and are often cursed by motorists for their very presence at the intersection. They face intersections with a fear born out of startling experiences.

Dear ol' dad knew the hazards and tried to instill in you some respect for the crosswalks. Remember the fear and excitement you felt the first time you crossed a street by yourself?

But we don't have to go back to age four for harrowing tales. Here's one about a young man going to college at a campus placed unfortunately in the center of a large city. One afternoon he hurried to class and started across a one-way street, only to have the "walk" light disappear as he was halfway across, to be replaced by the dreaded "don't walk" signal. He pressed onward and the stoplight changed. But instead of waiting for him to complete his journey across the asphalt, the motorists slammed into gear and came right at him.

He stood there, in the crosswalk, three lanes behind him with cars moving through the intersection, one lane between him and the curb, with cars doing the same, and with his body blocking one lane of traffic. For some reason, the cars in that lane decided not to run him over. Instead they planted their elbows on their horn buttons – urging him to high-jump over the other lane, perhaps?

Our friend managed to make it to the curb when that final lane cleared of traffic long enough for him to run across.

The next semester he changed campuses.

This was obviously a lack of good etiquette on the part of the motorists. We know about the incident because our friend lived to tell us about it, but how many other such experiences, perhaps with senior citizens, ended with the pedestrian being struck? Intersections are no place for a quick foot to the accelerator, or a quick hand to the horn button.

When your light changes to green, wait for other traffic to clear out. Also wait for those pedestrians, and bike riders, and animals. Once you're sure you won't hit anything other than small pebbles, you can go.

Apres vous: The only trick to good motoring etiquette is to realize that the other person – motorist, motorcyclist or foot traveller – also has a right to be at that particular intersection, and to realize that letting him go first takes only a little patience and a small amount of grace.

Skywriter

DRIVER will lose its technical editor this summer, and we need a replacement. We'll be looking for a budding writer (not necessarily a trained journalist) who has some interest in photography, too.

But not only that. Our mild-mannered Tech Ed must be able to jump into the trunk of an automobile, change to his overalls and come out as the grease-smeared "Backyard Mechanic," enemy of costly car repairs.

In other words, we need a person who can fill two positions—writer and mechanic. You must have some good practical experience in auto and motorcycle maintenance, as well as driving and riding.

We can accommodate a wide variety of AFSCs: safety technician, transportation, information, etc. You must be an Air Force E-6 or below, and you must have been at your present station for three years to be eligible.

If you think you can handle the assignment, call us or send your resume with samples of things you've written. Include your AUTOVON phone number, your AFSC, and your present job title. The position will be available after July 31.

Hi there,
sports fans

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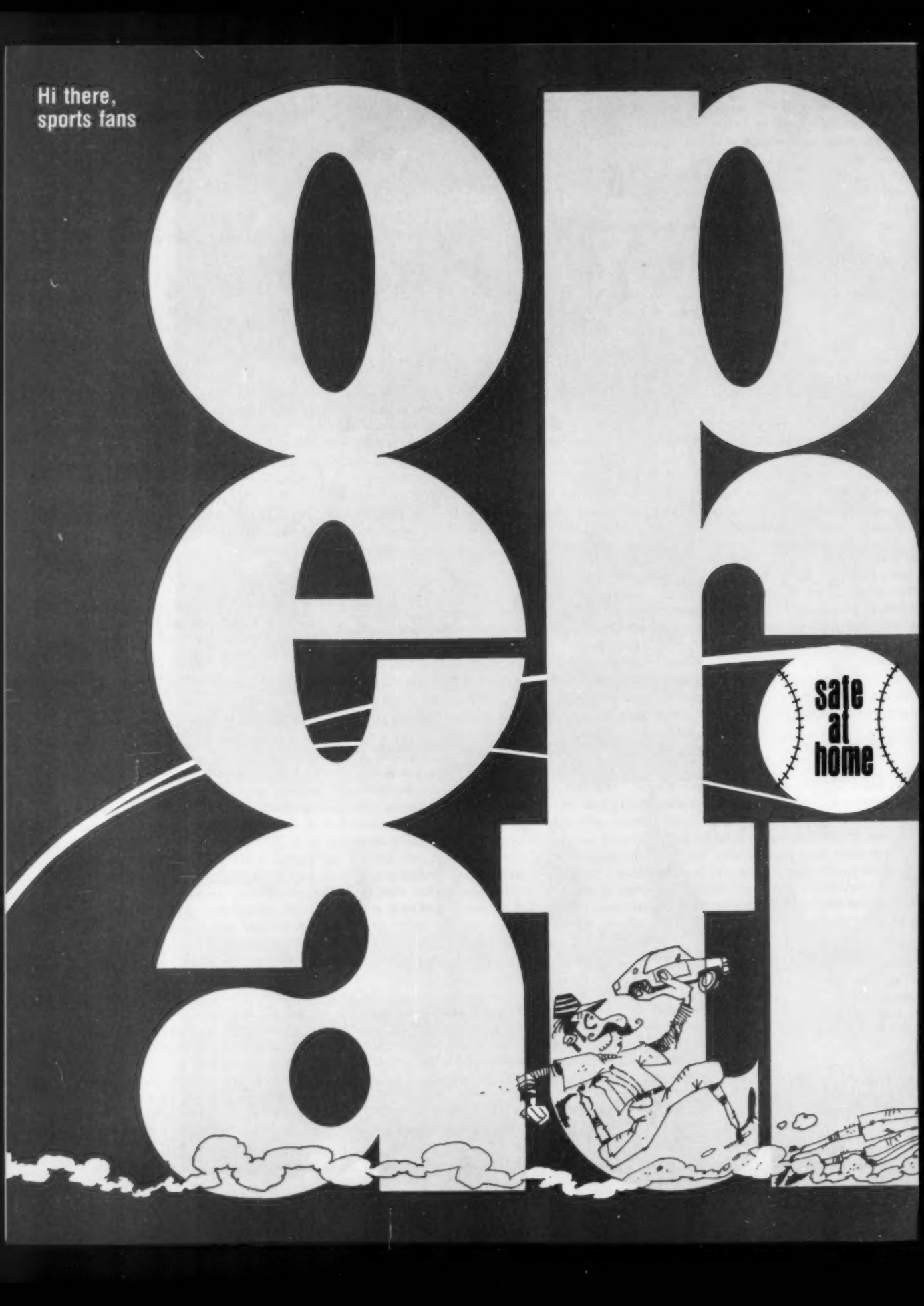


MOTHBALL ...

Considering the price of automobiles these days, if you get orders to a remote station or you're off to sea for a while, maybe you won't want to sell your car. But what can you do with it? If it's a good-running machine and it's paid for, you might want to store it for the time you're gone. Here's what you need to know.

Inside or outside? If the paint on your car is marginal, or if you live in a fairly temperate area, you can store your vehicle outside. However, if you have custom paint or live some place like Chandler, Arizona, or Seattle, Washington, then you'd better consider inside storage. The price difference is considerable though, so let's do some simple arithmetic.

Average inside storage in Southern California costs about $47 per month, so for a tour to Korea the cost would be $564. Outside storage runs about $9 per month or $108. Now, for that $456 difference, you can buy a pretty good paint job.

Engine and running gear: The most important thing to remember when mothballing the engine is—do it while it's warm. All the following procedures are no help if moisture has a chance to seep into a cold engine's internals.

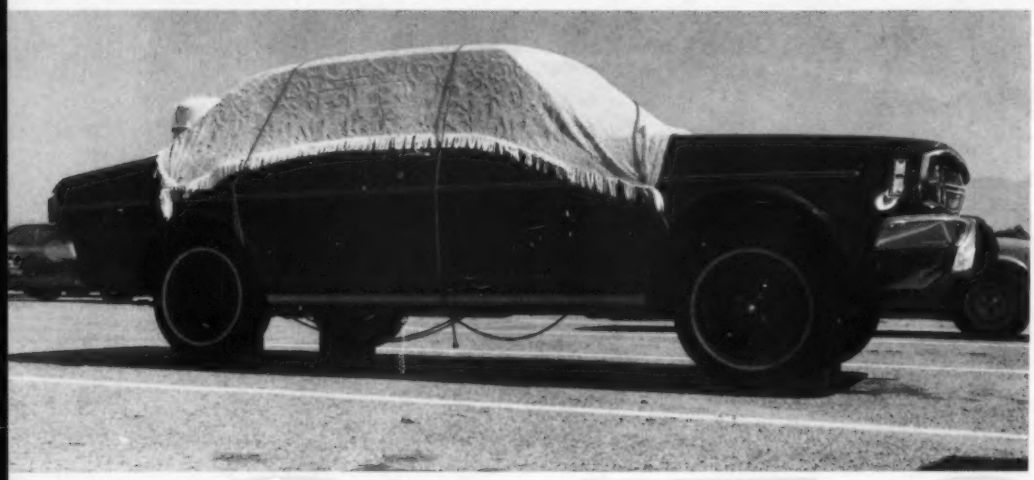
First off, try to time your storage actions so they closely follow an oil and filter change. Clean oil is always a good idea, but it's doubly important for storage.

Safely drain or siphon as much gas as you can out of the tank. Mix up a 3- or 4-quart batch of kerosene and oil (mix 3 parts of kerosene to 1 part oil), dump it in the tank and bounce the back end to thoroughly slosh and coat the inside of the tank.

Remove the spark plugs and ground the large ignition wire coming from the coil to the distributor. Pour one ounce per cylinder of nondetergent oil through the spark plug holes. Use the same weight you normally use for local driving.

Reinstall the plugs, but not the coil wire, and turn the engine over for 5 to 10 seconds. This will coat the cylinders with oil and draw the kerosene/oil mixture into the fuel pump and car-

continued



Although his wife still hasn't forgiven him for using her good bedspread, this fellow has the right idea. He's selected an approved parking space and notified the security police of the length of time the car will be stored. When you know someone is looking after your property, it can really ease your mind.

The air cleaner should be sealed to prevent FOD (foreign object damage) or moisture from entering the engine and messing up its internals. Some cars have two air entrances so check and seal both. A few vehicles have a "ram air" system with ducts connected from the air cleaner to the front of the car. Disconnect these ducts at the air cleaner and seal them as shown above.

Inside storage is available for $40 to $50 per month. Be sure to check local fire laws though; in some areas you must *completely* remove all fuel to store your car inside, and you can't leave a kerosene/oil mixture in the tank and fuel lines for corrosion protection. You should also assure that the storage area you select has a good security system.

...or how to store your car

continued

buretor to help the rust-proofing process.

Relieve the tension on all drive belts (fan, power steering, air conditioner, etc.) to prevent stretching and belt damage during storage.

Insure your radiator is topped off and rust-inhibiting anti-freeze rated to approximately −20° is added.

Insure transmission and rear axle fluid levels are correct.

Remove the battery, and if it's not a "lifetime guarantee" type, sell it or throw it away. "Lifetime" type batteries will usually take a charge after sitting for a year or more, whereas a conventional battery normally will not.

Get some duct (silver colored fabric) tape; plug and tape the exhaust pipe(s) and the air cleaner. On older cars, also plug and tape the breather on the valve cover.

Don't neglect to pack and seal exhaust pipes. While we advocate sealing the engine while it's warm, you must allow sufficient time for the tailpipes to cool before packing them with cloth. Old T-shirts or towels are fairly easy to ignite, and stuffing them in a hot tailpipe is a fast way to have a disastrous fire.

Body and interior: Use a good upholstery cleaner and lots of elbow grease on the interior. This will clean and soften the upholstery and get it ready for an application of Armor All or similar preservative. Don't forget to also treat any plastic knobs or dials on the dash panel, and double treat a vinyl dash. Use neatsfoot oil for leather interiors.

A light layer of vaseline will preserve the chrome, while bright-metal trim needs no treatment.

We suggest use of a preservative liquid on tires also, to help prevent sidewall cracking. It's a good idea to treat trunk, door seals, and vinyl tops, too.

Final preparation: If feasible, jack the car up and put it on jackstands. This will eliminate tire flat-spotting and ease the strain on shocks, wheel bearings, etc. If you can't put it up on blocks,

continued

BALL FAST BALL FLYBALL KNUCKLE BALL CURVE BALL SCREW BALL

To help prevent moisture from entering your engine, insert some absorbent cloth, such as an old towel, into all engine openings. Here, a rag is put into the valve cover breather hole on an older style car.

continued

After stuffing the opening with cloth, use duct tape to completely seal the opening. The same procedure applies to the opening where the breather connects to the air cleaner.

increase the air pressure in the tires 10 to 15 pounds.

Finally, open a window just a crack and cover up your trusty steed with a good quality car cover. If you live in a windy area, however, don't cover your car. The wind may cause the cover to flap and ruin the paint. Also, don't use plastic to cover your car. It can't "breathe" and moisture may collect inside.

When you return: Upon your return, just basically reverse the steps. Add gas (the kerosene/oil mixture will probably have evaporated), install a freshly charged battery, and tighten all belts. Disconnect the fuel line between the fuel pump and carburetor. Provide a catch basin for the gasoline and have your buddy turn the engine over 10 to 15 seconds. This will both pump out any residue in the fuel lines and provide oil to the engine parts.

Reconnect the fuel line, reinstall or unground the coil wire, install new spark plugs, and start it up. You may experience a hard start and uneven running, but it should smooth out in a few minutes.

Check for fluid leaks, insure all your lights are working, buckle up, and then drive off to find out what's been happening since you did the old "mothball" trick.

This is the way to go. The blocks are new and sturdy and are placed under the outermost ends of the A-frame. You can also block the chassis, but this means your shocks will rest in the extended position and may allow the hard chrome portion of the exposed shock rod to corrode. We also recommend that you remove the wheels and tires and store them in a secure place, or at least somewhere where they can't be seen so a casual thief won't get ideas.

restraint poll

In January we received a letter from a reader who suggested a survey on preferences for safety devices (belts, airbags) in cars. We thought it over and we decided to give it a whirl. Our reasons for doing this were two in number: We wanted to have a little fun, and we were curious to see how hot the issue of restraints is. You remember how angry the public got after the seatbelt buzzer-interlock devices appeared. Will there be a similar reaction to airbags or "passive" seatbelts?

You've heard all the talk about the different restraints, and you've heard the pronouncements of what the public thinks. Now here's your chance to tell us what you *really* think.

Obviously, this poll will not be a truly random, scientific poll. We don't have a way to accomplish that. But the more people who respond, the more idea we'll have of what you think – or at least how many of you care enough to respond. If you have an opinion, let us know what it is. This makes it especially important that as many people as possible see the questions. Pass the magazine around and let your buddies give us their answers, too.

There are three kinds of restraints used presently. These are: Regular seatbelts that you must buckle yourself (which we will call "active" belts), special belts that are attached to the car so that they are engaged when the door is closed (which we will call "passive" belts) and airbags that inflate in front of the driver and passengers when the car impacts in an accident (which we will call "airbags").

Active belts are required in all cars. Some foreign cars are coming equipped with passive belts, and some full-sized domestics are now equipped with airbags. Airbags or automatic belts will be required in all full-size cars by the 1982 model, and in *all* cars manufactured after 1 Sep 1983.

There are advantages and disadvantages to all three kinds of restraints. We'll list a few; you may think of others.

Active belts—advantages:

1. They guard against injury no matter what the direction of the impact.
2. They are inexpensive to manufacture and therefore add little to the cost of the car.
3. They are reusable.

Disadvantages:

1. You have to buckle them yourself.

Passive belts—advantages:

1. They guard against injury no matter what the direction of impact.
2. They are inexpensive to manufacture and therefore add little to the cost of the car.
3. They are reusable.
4. You don't have to do anything to engage them.

Disadvantages:

1. They do not retract out of the way.

Airbags—advantages:

1. They will protect you as well as seatbelts in a front- end collision.
2. You don't have to do anything to engage them.
3. They are not in the way for normal driving.

Disadvantages:

1. They will not necessarily protect you in collisions other than front-end.
2. They add a lot to the initial cost of a car.
3. They are not reusable.
4. They are expensive to replace after their use.

We'll be honest with you – we wish everyone would wear their seatbelts so expensive devices like airbags would not be necessary. But so many of you *don't* buckle the belts that we're willing to back anything that'll keep you in one piece in case of a car wreck.

Rather than make this thing a multiple-choice questionnaire, we've decided to give you a chance to blow off a little steam and give your true opinion. So the questions will be "open-ended" – write as much as you'd like.

1. What kind of restraint do you prefer and why?
2. Why do you *not* prefer the others?
3. What kind of restraints are in your present car?
4. If you have the regular active belts, do you use them? If not, why?
5. If you have passive belts, have you left them connected? If not, why?
6. If you have airbags, have they ever been used?

We'd also like some information on you personally. This is not for identification purposes – in fact we don't want your name. This is just for informal analysis of the results we get.

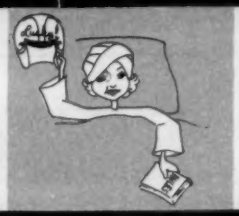
Give us your command, your rank, your age, the kind of car you own (foreign or domestic).

Write your answers in a letter or on the back of a postcard (if that's enough room for you), and mail it to:

DRIVER Magazine
AFISC/SEDD
Norton AFB, CA 92409

We'll let you know the results.

LETTERS to the EDITOR — BACKfire



BACKYARD BODYWORK

I have just finished reading your Oct '78 "Backyard Mechanic." I would just like to say one word in addition to your article. No matter how easy it sounds, the beginner will find backyard bodywork somewhat harder than he or she thought.

Be sure to stress the fact that the beginner must have a truckload of *patience*. It cannot be emphasized enough.

After doing bodywork both for an income and as a hobby for the past four years I find that *patience is still the hardest thing to master*.

A1C Kim Westerling, USAF
PSC Box 7096
APO New York 09012

How true!

PARTTIME FWDers

While visiting our local restroom, I found your Oct '78 issue (we don't *normally* keep them there!!) and took the "Quickie Reflex Test." Is 3.5 seconds fast enough?!?

Although I missed the article that Sp4 Gray, USA, referred to, I'd like to make a very short response to his comments. Now that FWD vehicles are readily available to the general public, because of the increased interest in FWD, many people are "part-time" FWD drivers – and only use them as a "parttime" fun-type vehicle, i.e., a very expensive, large and heavy NEW *to them* toy! I have seen it. The ". . . top pro off-road racers . . ." certainly do not consider them toys, just as Ken Roberts does not consider his "rides" as toys, but many people do think of them as toys, as do some short-time cycle riders.

Thank you for your time and a great magazine!!!

AC1 Richard H. Kratz, USN
Air Traffic Control Facility
NAS Kingsville, TX 78363

Rather than start an interservice war over where we found the last issue of ***Lifeline****, we'll just say thanks for the nice letter. And never again will we be so cute as to call a FWD vehicle a "toy."*

MORE METRICS

After reading Capt Jett's letter in the Nov '78 DRIVER, and generally agreeing, I'd like to introduce some "real-life" into the festivities: The units discussed, especially those for pressure, make a lot of sense BUT the folks don't use them. Instead they use such terms as KG/M²" for pressure and "KG-M" for torque. I have yet to see an airconditioner pressure gauge or tire gauge marked in Pascals or Kilo-Pascals but have seen a few in the KG/M² or KG/CM² format. Examples of both the torque and pressure notation can be found in HONDA repair manuals, for example, and I've seen those gauges in several countries in the Far East. This is the same error that we make when expressing mass in "pounds." The proper unit is "slugs" which weigh 32.2 pounds, but only on the earth. It would be super nice if all concerned got their act together and used proper units but I really don't expect it any time soon. 1 KG/CM² = 14.193 PSI and 1 KG-M of torque comes out to 7.218 LBS-FT.

MSgt Jerome C. Borden, USAF
6225 E. Platte Box 1
Colorado Springs, CO 80909

LUCKY!

I am writing in reference to the "Timely Topics" on motorcycles in the Dec '78 issue of DRIVER.

I am stationed at Norton AFB. About a year and a half ago I wanted to learn to ride a motorcycle. After learning the basics I thought I was ready for the road. My boyfriend and I took off to the mountains. He rode a Honda 750 and is an excellent rider. He has been riding for approximately 10 years and is well versed in motorcycle safety. I rode a Honda 350.

We came to a bad turn that was completely covered with sand. My boyfriend's bike made it through but mine didn't. My bike slid sharply towards the bank. I knew if I stayed with it, I would be under it. So, I jumped and landed first on my head and then on my shoulder. Luckily, I received only a few bruises and some bad scrapes.

I wouldn't be here to write of this accident if I hadn't worn a helmet. Please continue to stress the facts of motorcycle safety. And for those who know it all, I hope they remain around long enough to KNOW IT ALL.

A1C Valerie A. Carlson, USAF
CES Sq
Norton AFB, CA 92409

We wish so, too.

FROZEN DOORLOCK

Here's a tip that's even better than a match or lighter-heated key to undo a car's frozen doorlock (Oct '78 DRIVER). Keep a small amount of ethylene glycol antifreeze in your garage, storage area, or quarters. A small pill bottle, with child resistant cap, holds about two ounces which is enough for years. Label the bottle. The door key, when dipped into the antifreeze and worked into the lock, transfers some of the stuff to the interior of the mechanism. Repeated dippings and gentle working of the key has never failed to quickly release the freeze-up. As a non-smoker, the effort to beg, borrow or steal someone else's matches or lighter, just to scorch my fingers on a hot key at 0600 hrs on a winter's morning in the Chicago area, was more of a problem than keeping the antifreeze handy. Use of the stuff before the freezin' season helps prevent the problem, too.

Col George R. Heisel
Medical Corps, USA
1B456 Pentagon
Wash, DC 20310

Thanks for the tip, Colonel.

DANGEROUS HIGHWAYS

I was fascinated by your listing of the five most dangerous highways (Dec '78 DRIVER) since the Highway Users Federation used to put together similar lists. Like the 10 best-dressed women, such lists are always popular but seldom accurate, so we discontinued the practice. Let me illustrate the risk by using your article as an example.

All of the five most dangerous highways you list are turnpikes. Turn-

pikes traditionally have much lower death rates than the highway system as a whole. Using National Safety Council statistics, the turnpike death rate in 1976 was 1.2 (compared to 3.3 nationally) and in 1975 was 1.3 (compared to 3.5 nationally). At the top of your list is the Purchase Parkway in Kentucky, which had no fatalities in 1975 or 1976.

Now, a low death rate doesn't necessarily mean the road is safer than one with a higher death rate. For example, the West Virginia turnpike had a death rate of 6.5 in 1976, nearly twice the national average, with 13 people killed. On the other hand, the New York State Throughway had a 1976 death rate of 1.2, far below the national average, but 49 people were killed. Which road was more dangerous?

I haven't seen the 1978 tabulations yet, but I'll bet turnpike accidents still come in lower than other rural roads.

Mr. Robert M. Calvin
Highway Users Federation
1776 Massachusetts Ave, N.W.
Washington, DC 20036

Don't mean to pass the buck, but DRIVER has no idea what highways are the most dangerous. Our list came from the National Safety Council, which keeps tabs on such matters.

AVID READER

I am an avid reader of your magazine. I would like to take exception to the last statement by MSgt Williams ("Backfire" Dec '78). Whenever you write on motorcycle safety I absorb every blessed word. Experienced I am, a know-it-all I am not.

Keep on writing . . . I'm still learning!

TSgt Robert L. Jones, USAF
PSC 2, Box 3523
Elmendorf AFB, AK 99506

AUTO BODY PAINTING

I enjoyed your article on painting in the January edition. Having several years of experience in auto body/painting, my methods of madness differ in several areas.

An excellent tip for all is a very simple one. Place the hose over your neck and shoulder. This eliminates the possibility of dragging it across hoods, fenders, or roof edges. It is very disheartening when this happens while applying a second coat. The hose weight and slack can be controlled with the hand not painting.

GySgt Charles Karsko, USMC
SOES MCAS
Cherry Point, NC 28533

Thanks for a good tip!

KUDOS

May I congratulate you on the excellent December '78 issue of DRIVER and your concern for motorcycle safety. I am very pleased my article on "Discipline" was included and that it and the other articles may contribute to motorcycle safety. My best wishes to you and your staff.

Eugene Alvarez, Ph.D.
Macon Junior College
Macon, GA 31206

REBUTTAL

The letter from MSgt Williams in the Dec '78 DRIVER pointed out some discourteous and unsafe practices he had observed in Tidewater, Virginia. The majority of his fellow drivers probably agree with him on a number of points.

This area does suffer from some very poorly designed interchanges, entrances and exits. The defensive driver quickly recognizes them and drives accordingly on the Interstate and expressway. The problem areas are known and improvements are being made.

Tidewater cities, i.e., Norfolk, Virginia Beach, Chesapeake, Portsmouth, Hampton and Newport News have experienced rapid growth in the past 10 years. We are proud of our area and the majority of military and civilian drivers obey the laws and common courtesies of the road.

As could best be determined, there are no cars sold in this area that do not have turn signals. Those not used or non-operational are the fault of the driver – not the State of Virginia or the manufacturer.

Anyone coming to this area for duty or a visit should feel welcome if they practice defensive driving and realize that some of us respect them. During morning and evening rush hours they should tune in WTAR 79 AM for traffic conditions. The reports are made by two of Norfolk's police officers from the traffic copter and from a patroling van who goes by the CB handle of "MR. ASSISTER."

Thanks for a great magazine and the space for this letter.

CWO Vernon A. Burford, USN
USS L. Y. Spear AS-36
FPO New York 09501

DOUBLE CLUTCH

continued from page 2

The other is the belt-sensitive reel: When the belt plays out too fast, a little bar blocks the reel's ratchet teeth. Some units incorporate both.

How do we know these devices work? Testing. The manufacturer is required to perform a whole series of tests on a percentage of each batch of belts produced. Independent testing firms do the same, as do the automobile manufacturers. The Department of Transportation makes occasional batch tests of its own. Some of the tests are done on sleds, using actual belts, car seats, common vehicle speeds, and dummies weighing up to 220 pounds. Other tests are done in real cars with dummie drivers, crashing into cement barriers.

As to cutting out any part of the lap-shoulder combination, DON'T. Should you end up with a shoulder belt and no lap belt, the pelvic area would not be held secure in an impact. Then those injuries our friend was talking about really might happen!

In fairness to the race-driver, who really is an old friend, he thinks automobiles should have airplane-type harnesses. You know the kind. A belt comes over each shoulder and fastens single-point between the legs. He's right of course. But how many drivers would use them?

☆U.S. GOVERNMENT PRINTING OFFICE: 1979—683-012/5

"Now, about the new AFR 125-14..."

No, we're not serious. Fellow in the fantastic protective equipment is Garry Drexler of AFLC. The armor is the real thing, designed for Garry in England by Tony Ptolemey, one of the few registered armorers in the world today. It weighs 70 pounds, has 160 moving parts, and is what the well-dressed knight wore in the late 1500s. Garry says it's not too great for motorcycling though. Hard to stay balanced. But can you imagine some motorist running into Garry on that Harley and saying, "But officer, I just didn't notice him!"